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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,236	07/22/2003	Thomas H. Rooney JR.	H1535-00019	7544

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EXAMINER

BLAKE, CAROLYN T

ART UNIT PAPER NUMBER

3724

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/624,236

Applicant(s)

ROONEY, THOMAS H.

Examiner

Carolyn T. Blake

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-21 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 and 10-21 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to applicant's amendment received on April 11, 2005
2. The objection to claims 12, 23, and 24 is withdrawn in view of the amendment.
3. The text of those sections in Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 1-8, 10, 11, and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vecchi (3,742,797) in view of Svensson (3,111,053).

Regarding claims 1, 8, and 10, Vecchi discloses a metal stamping system (FIGS 1-4) comprising: a press including; an upper die shoe (8) including a plurality of guide posts (10) arranged in a pattern and projecting outwardly from a bottom surface, a lower die shoe (1) positioned in confronting relation to said surface and including a first plurality of open ended tubular guide bushings (27) each having a first anti-friction bearing assembly (24, 25, and 28) positioned within a central passageway, and each located so as to receive a corresponding one of said guide posts (10); and a stripper-plate (13) positioned between said upper die shoe (8) and said lower die shoe (1), including a second plurality of open-ended tubular guide bushings (20) each having an outer surface and an inner surface and each projecting outwardly toward said lower die shoe (1) in a pattern corresponding to said pattern of guide posts (10) such that each of said first anti-friction bearing assemblies (24, 25, and 28) slidingly engages an outer surface of a corresponding one of said second open ended guide bushing (20) wherein each of said second plurality of open-ended guide bushings (20) includes a second anti-

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friction bearing assembly (see FIG 4) positioned on said inner surface so as to engage a corresponding one of said guide posts (10); and spring means (18) for separating said upper shoe (8) from said lower shoe (1) after each downward stroke. However, Vecchi fails to disclose the means for actuating the stamping system, including a ram with a bulbous protrusion. Svensson discloses a actuation system comprising a ram (14/15) having a bulbous protrusion (19) projecting outwardly from an end; an upper element (12/16/18/20) including (i) a recess (18) formed in a top surface, said recess (18) being complementary to and receiving said bulbous protrusion (19), and (ii) a plurality of guide posts (unnumbered, see FIG 4) arranged in a pattern and projecting outwardly from a bottom surface, wherein said bulbous protrusion (19) is received within said complementary recess (18). This configuration creates particularly good contact between the corresponding surfaces, resulting in decreased wear and freedom of angular and transverse movement (col. 2, lines 37-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an actuation system including a ram with a bulbous protrusions, as taught by Svensson, on the Vecchi device for the purpose of decreasing wear and creating angular and transverse freedom of movement.

Regarding claims 2, 3, and 15, Vecchi discloses each of said open-ended tubular guide bushings (20) includes an annular shoulder that projects radially outwardly from a top end. See FIG 3. Furthermore, Vecchi discloses each of said open-ended tubular guide bushings (20) comprises an internal passageway defined by a hardened surface

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and sized to slidably accept one of said first anti-friction bearing assemblies (24, 25, and 28).

Regarding claims 4, 6, 17, and 20, Vecchi discloses each of said anti-friction bearing assemblies (24, 25, and 28) includes a plurality of circularly and longitudinally spaced ball bearings (25) that are each confined in a bearing cage (24), wherein said ball bearings (25) are preloaded against said hardened surface.

Regarding claims 5 and 7, Vecchi discloses each of said anti-friction bearing assemblies (24, 25, and 28) comprises an open ended tubular cylinder (28).

Regarding claim 11, Vecchi discloses the upper die shoe (8) includes at least two of said guide posts (10) that are each received within one of said first open ended tubular guide bushings (27).

Regarding claim 14, Vecchi discloses the stripper-plate (13) includes a pattern of peripheral through-bores (FIG 1) arranged in corresponding relation to the positions of said guide posts (10) and said first plurality of open ended tubular guide bushings (27).

Regarding claim 16, Vecchi discloses each of said internal passageways is defined by a hardened surface, and is sized to slidably receive a first anti-friction bearing assembly (24, 25, and 28) and one of said guide posts (10).

Regarding claim 18, Vecchi discloses the bearing cage (24) is cylindrical, and sized so as to longitudinally enclose and encircle one of said guide posts (10).

Regarding claim 19, Vecchi discloses each of said first anti-friction bearing assemblies (24, 25, and 28) is located between said guide post (10) and bearing cage

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(24) so as to allow for a prestressed loading of said ball bearings (25) against an outer surface of said guide post (10).

Regarding claim 21, Vecchi discloses each of said bearing cages (24) is cylindrical, and each is sized so as to (i) longitudinally enclose and encircle one of said second plurality of open-ended tubular guide bushings (20), and (ii) be received within one of said first plurality of open-ended tubular guide bushings (27).

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vecchi in view of Svensson as applied to claim 10 above, and further in view of Beck (1,968,595). Vecchi discloses the upper die shoe (8) includes four guide posts (10) wherein each is received within one of the first open ended tubular guide bushings (27). Vecchi in view of Svensson fails to disclose six guideposts. However, Beck discloses a metal stamping system comprising a press with an upper die shoe (4), a lower die shoe (1), and a stripper plate (48). The upper die shoe includes six guide posts (3). See FIG 3. The additional guide posts provide greater precision of the stamping system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide six guide posts, as disclosed by Beck, on the Vecchi and Toeniskoetter combination in order to provide greater precision while stamping.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vecchi in view of Svensson as applied to claim 10 above, and further in view of Janiszewski (4,003,283). Vecchi discloses a spring means (18) for separating the upper shoe (8) from the lower shoe (1), but fails to disclose the spring is mounted to the guide post. Janiszewski discloses a stamping system with an upper die shoe (10) and a lower die

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shoe (14) wherein the guide post (10) includes a recess defined at a free end (bottom of 10), having a spring (72) mounted therein for separating said upper shoe (10) from said lower shoe (14) after each downward stroke. This arrangement with the bearing balls provides uniform guided movement of the guide post (col. 1, lines 22-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a spring on the free end of the guide post, as disclosed by Janiszewski, on the Vecchi and Toeniskoetter device in order to provide uniform guided movement of the guide post.

Response to Arguments

7. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the argument the Vecchi and Toniskoetter devices should not be combined in order to reject the claims, the argument has been fully considered and is persuasive.

Regarding the argument the Beck device should not be used in the rejection to claims 3 and 4 because it teaches pistons, head castings, and cylinders in addition to guide posts, the reference was employed merely to show the concept of six guide posts and motivation for using additional posts. It should be noted, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.

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See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Furthermore, Applicant has not disclosed the number of guide posts is critical to the invention, and one skilled in the art may employ more or fewer guide posts for a variety of reasons, such as space considerations, weight of the die set, and shape of the work piece.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn T. Blake whose telephone number is (571) 272-4503. The examiner can normally be reached on Monday to Friday, 8:00 AM to 5:30 PM, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CB

CB
June 16, 2005



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